

CLAIMS

What is claimed is:

1. A flip chip package, comprising:
 - a carrier having an upper surface and a lower surface;
 - a chip having an active surface and a back surface, wherein the chip is disposed above the upper surface of the carrier;
 - a plurality of bumps mounted on the active surface and connecting the upper surface of the carrier and the active surface of the chip;
 - a dam disposed on the upper surface of the carrier; and
 - a heat spreader attached onto the dam and the back surface of the chip.
2. The flip chip package of claim 1, further comprising an adhesive layer interposed between the back surface of the chip and the heat spreader.
3. The flip chip package of claim 2, wherein the adhesive layer is a thermally conductive epoxy.
4. The flip chip package of claim 1, wherein the dam is disposed at the periphery of the chip.
5. The flip chip package of claim 1, wherein the dam encloses the chip.
6. The flip chip package of claim 5, wherein the dam is formed in a ring-type.
7. The flip chip package of claim 1, further comprising an encapsulation filled in a space enclosed by the heat spreader, the upper surface of the carrier and the dam.
8. The flip chip package of claim 7, wherein the encapsulation comprises an underfill.

9. The flip chip package of claim 8, wherein the underfill encloses the chip and the bumps, and covers the upper surface of the carrier.
10. The flip chip package of claim 8, wherein the underfill is connected to the upper surface of the carrier, the heat spreader and the dam.
11. The flip chip package of claim 1, wherein the material of the heat spreader comprises copper.
12. The flip chip package of claim 1, wherein the material of the heat spreader comprises aluminum.
13. The flip chip package of claim 1, wherein the heat spreader is a flat plate.
14. The flip chip package of claim 1, further comprising a plurality of solder balls formed on the lower surface of the carrier.
15. The flip chip package of claim 1, wherein the dam is an adhesive.
16. The flip chip package of claim 1, wherein the material of the dam comprises epoxy.
17. The flip chip package of claim 16, wherein the material of the dam is a thermally conductive epoxy.